

(19)



KOREAN INTELLECTUAL PROPERTY OFFICE

## KOREAN PATENT ABSTRACTS

(11)Publication number: **1020020038540 A**  
 (43)Date of publication of application: **23.05.2002**

(21)Application number: **1020010071313**  
 (22)Date of filing: **16.11.2001**

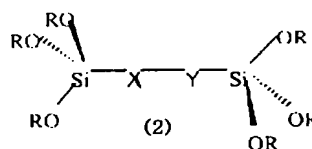
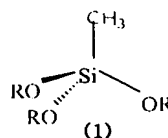
(71)Applicant: **CHA, GUK HEON  
 LEE, HUI U  
 LEE, JIN KYU  
 YOON, DO YOUNG**  
 (72)Inventor: **CHA, GUK HEON  
 LEE, HUI U  
 LEE, JIN KYU  
 YOON, DO YOUNG**

(51)Int. Cl. **C08G 77 /04**

**(54) POLYMETHYLSILSESQUIOXANE COPOLYMER AND PREPARATION THEREOF AND LOW DIELECTRIC COATING MEMBRANE USING THE SAME**

**(57) Abstract:**

**PURPOSE:** Provided are a soluble polymethylsilsesquioxane copolymer having many terminals and a large molecular weight, a preparation thereof, and a low dielectric coating membrane using the polymethylsilsesquioxane copolymer. **CONSTITUTION:** The polymethylsilsesquioxane is produced by copolymerizing methyltrialkoxo silane represented by the formula 1 with one or two monomers selected from alpha, omega-bis(trialkoxysilyl) compound represented by the formula 2 or bis (methyldimethoxysilyl)ethane in a mixture solvent of an organic solvent and water in the presence of an acid catalyst. The polymethylsilsesquioxane contains the Si-OH terminal content of more than 10%, a molecular weight of 5,000-30,000, and a crosslinkable organic silicon monomer. And the low dielectric coating membrane is formed by mixing the polymethylsilsesquioxane copolymer with a pore generating agent in an organic solvent and then coating the mixture on a substrate. In the formula, R is CH<sub>3</sub>- or CH<sub>3</sub>CH<sub>2</sub>- and -X-Y- is -CH<sub>2</sub>-CH<sub>2</sub>-.



copyright KIPO 2002

**Legal Status**

Date of request for an examination (20011116)

Notification date of refusal decision (00000000)

**PATENT AVAILABLE COPY**

Express Mail No. EV746682534US